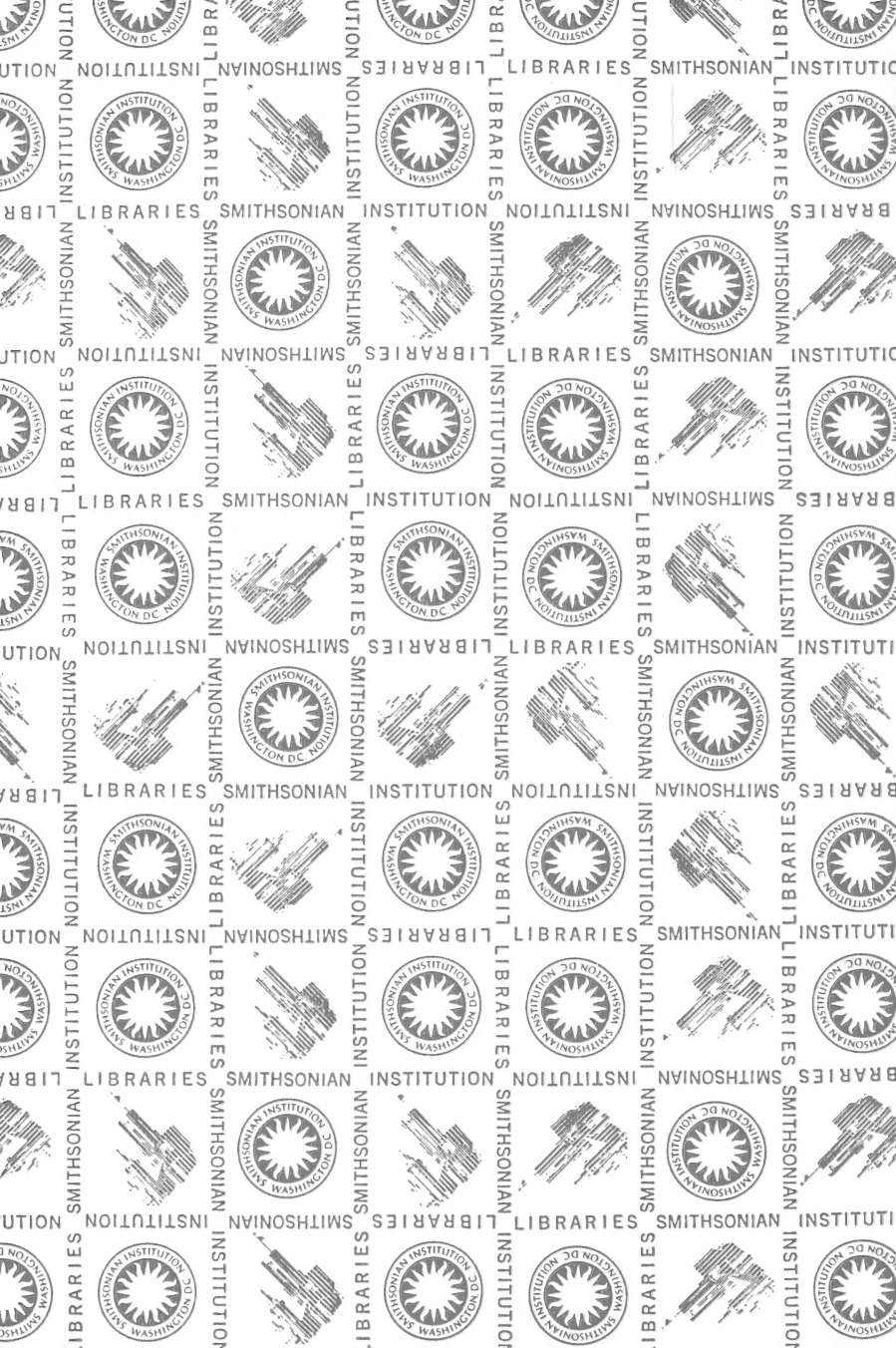
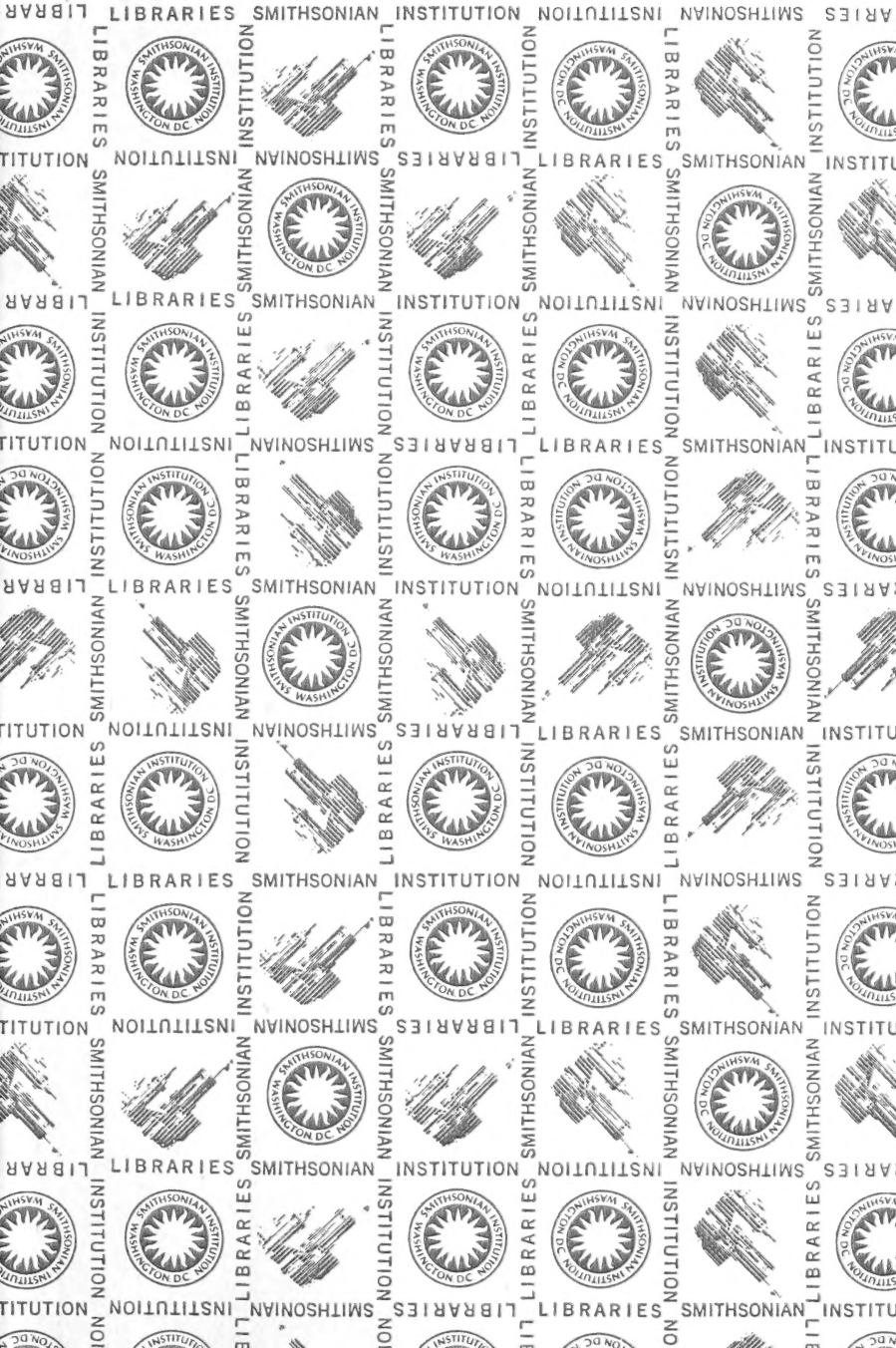


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# CHECKLIST OF THE RECENT BIVALVE MOLLUSKS

(Pelecypoda)

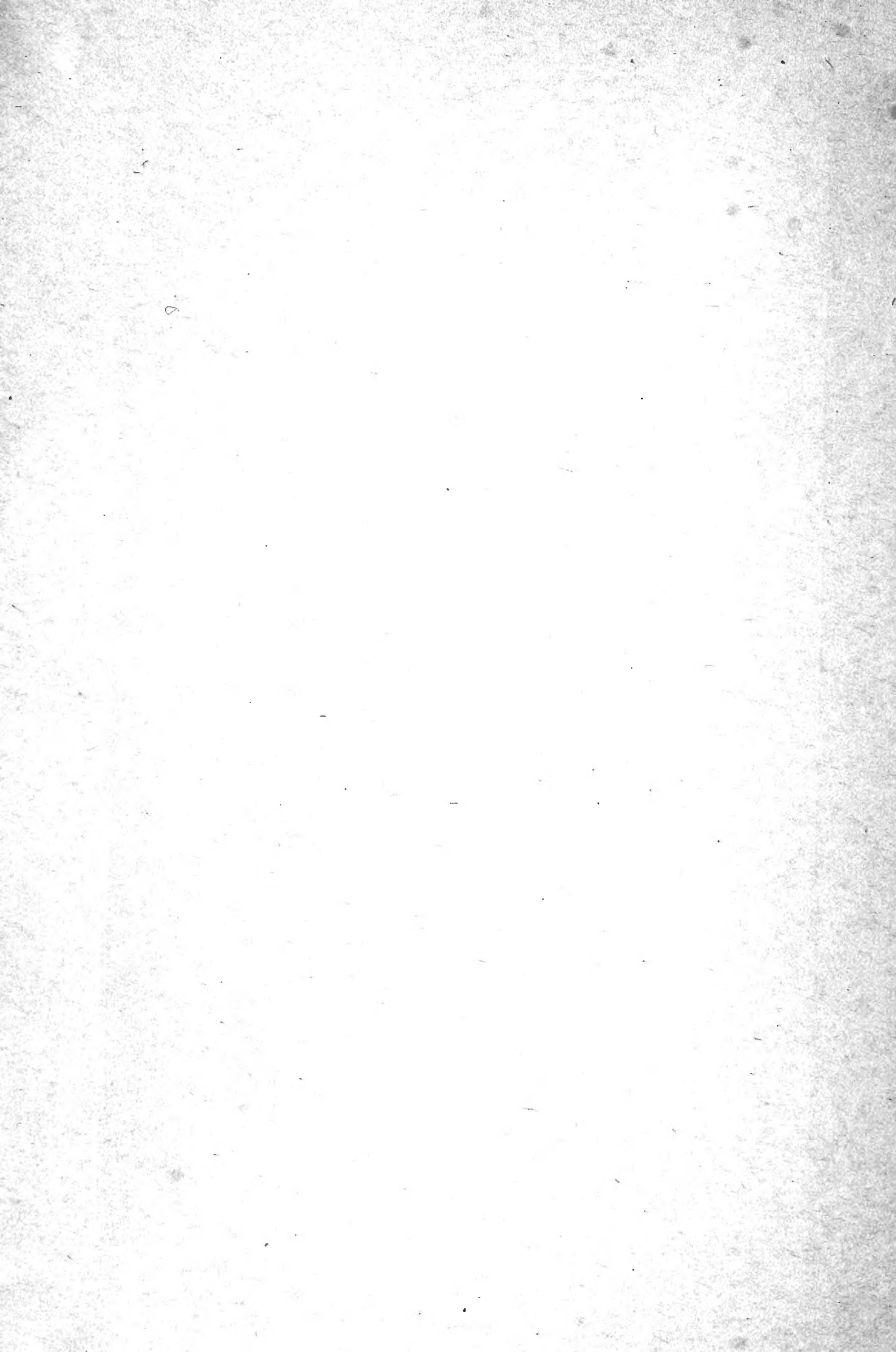
OF THE NORTHWEST COAST OF AMERICA FROM THE  
POLAR SEA TO SAN DIEGO, CALIFORNIA

BY  
WILLIAM HEALEY DALL, Sc. D., L. L. D.  
1916

*Aug. 28th*



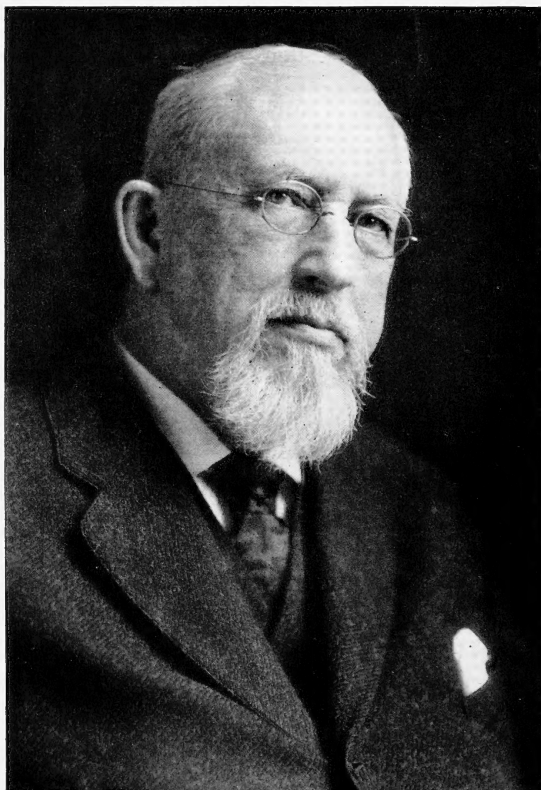
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Wm. H. Dall

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Los Angeles  
California

July 10, 1916.

Sir:

I have the honor to submit to your consideration an important manuscript by Dr. W. H. Dall. I recommend its publication as a valuable contribution to natural history, specially desirable owing to the present lack of authoritative nomenclature in Conchology.

In appreciation of our earnest, if youthful research work; the creation of the division of Conchology in the Southwest Museum, and the installation of the famous Golisch collections, Dr. Dall has graciously consented to have the Museum publish his latest contribution to Pacific Coast Conchology.

The author enjoys international reputation, which is complemented by his official position as Honorary Curator of Conchology in the United States National Museum. His check list is therefore a specially suitable contribution to the educational aim of our Institution devoted to Scientific Research and Higher Education, as its second publication.

Yours faithfully,

Hector Alliot,  
Curator.

To Doctor Norman Bridge,  
President Southwest Museum.



## INTRODUCTION

In the preparation of this checklist the author has utilized the results of almost exactly fifty years study of the molluscan fauna of the Pacific Coast, his personal investigations having begun in May, 1865, shortly after his arrival at San Francisco.

Experience has shown that the possession of a satisfactory checklist is one of the most efficient means of promoting the study of the fauna of any given area.

Moreover, in the case of the mollusca it is a fact that nearly all the modern textbooks are out of print and can only be had at second hand, and also that in the time which has elapsed since their publication the reformation of the nomenclature has made unprecedented progress, shown in a number of more or less scattered memoirs or essays, difficult to bring together.

The classification of the bivalves adopted here is the result of a study of all their known characters and therefore differs from the conclusions of one or two European writers based upon single or physiologically unimportant features. It is doubtless doomed to submit to future improvement as our knowledge of the anatomy of these animals is increased, but may claim to embody the results of the most modern investigations to the present time.

In a list of this kind it is impossible to give synonyms except in the most urgent cases. The addition of the year in which the original description appeared, however, will assist the student having access to the literature to supply this for himself.

The distribution given is that authenticated from actual inspection of specimens by the writer, except in a few cases where the authority is given in parentheses. Doubtless many readers of the checklist will be able to enlarge the range here printed. Communication of such data for future use is greatly desired by the author, and may be addressed to him, care of the Smithsonian Institution, Washington, D. C.

The distribution of the Mollusca on the West Coast of

America may be allotted to three grand divisions; the Arctic or Boreal, the Temperate, and the Tropical faunas.

The first, containing many Circumboreal species, extends from the Arctic or Polar Sea to the southern limit of drift ice in winter in Bering Sea. The Temperate division extends from this line southward on the west coast of America to Point Conception, California. The Tropic division reaches from this point south to Point Aguja on the coast of Peru. Each of these divisions may be subdivided into subordinate and reasonably distinct faunas; the Arctic into eastern and western or Atlantic and Pacific; the Temperate into Aleutian, Oregonian, and Californian; the Tropic into the Gulf of Californian, the Panamic, and the Ecuadorian.

Taking the distribution of a single family these distinctions might have their boundaries modified, but taking the average of the whole molluscan fauna, they appear to be well established.

The limits of these faunas are not in all cases sharply defined. Some of the less sensitive species will be found to range far beyond their divisional boundaries; and their range is largely governed by the temperature of the water as distributed by the ocean currents.

In southeastern Alaska, where the inshore channels are kept cold by the drainage from glacier streams, many Arctic forms persist, while on the outer fringe of the archipelago, in warmer water, quite a number of the more southern species extend their range northward.

The student of this list will notice many more species, which from California extend their range to Panama or even Peru than are recorded in any previous publication.

The general discussion of the limits of the several faunas and subfaunas must await the revision of the gastropod mollusks now in progress.

I have included the species of deep water dredged near the coast (although the distribution of the deep water fauna is altogether different from that of the shore) because, being subject to the sea temperatures many of those found at a depth of hundreds of fathoms at the south, in the cold water of the

deeps, follow the isotherms and appear in depths of a few fathoms in the north.

There is a special fauna existing on the shallow plateau of northeastern Bering Sea, which does not approach the shores. This, though profuse in individuals, includes hardly any characteristic species of bivalves and so does not enter into considerations based on the present checklist. In a checklist of gastropods it would furnish an amazing series of carnivorous species, chiefly belonging to the Buccinidæ, and including many unique or peculiar forms never found about the shores.

The present list contains about 474 species and varieties, of which some 86 have never appeared in any previous enumeration of the fauna, most of them having been very recently described. Doubtless many additions remain to be made with future exploration. The known range of many of the species will certainly be considerably enlarged.

The proper position of a few groups in the classification remains to be elucidated, such as the Vesicomycidæ, *Turtonia*, the *Philobryidæ*, *Cooperella* and a few others; they are here tentatively placed where the prevalent opinion indicates.

I am under obligations to the U. S. National Museum, and a multitude of Pacific Coast collectors for material and facilities used in preparing this checklist.

Species attributed to me with the date of 1916, are on the point of publication in the Proceedings of the U. S. National Museum.

WILLIAM HEALEY DALL



## CLASS PELECYPODA.

### ORDER PRIONODESMACEA (FOLIOBRANCHIATA)

*Superfamily* Solenomyacea

*Family* Solemyacidae

*Genus* Solemya Lamarck, 1818.

*Subgenus* Acharax Dall, 1908.

**Acharax johnsoni** Dall, 1891.

Oregon to Panama.

**Acharax agassizii** Dall, 1908.

Tillamook to Aguja Point, Peru.

*Subgenus* Petrasma Dall, 1908.

**Petrasma panamensis** Dall, 1908.

Santa Barbara, Cal., to Panama.

**Petrasma valvulus** Carpenter, 1864.

San Pedro, Cal., to Gulf of California.

*Superfamily* Nuculacea

*Family* Nuculidae

*Genus* Nucula Lamarck, 1799.

**Nucula tenuis** Montagu, 1808.

Point Barrow to Coronado Islands. Circumboreal.

**Nucula tenuis**, variety *expansa* Reeve, 1855.

Arctic Ocean to Sitka, Alaska; San Diego?

**Nucula quirica** Dall, 1916.

Chugachik Bay, Cook's Inlet, Alaska.

**Nucula petriola** Dall, 1916.

Off Santa Rosa Island, Cal., in 53 fathoms.

**Nucula cardara** Dall, 1916.

Monterey, Cal., to Lower California.

**Nucula linki** Dall, 1916.

Queen Charlotte Sound to Guaymas, Mexico.

**Nucula** sp.

Bering Sea, 1401 fathoms.

**Nucula exigua** Sowerby, 1832.

Golden Gate to Acapulco.

**Nucula carlottensis** Dall, 1897.

Queen Charlotte Islands to Anacapa Island.

*Subgenus* **Acila** H. and A. Adams, 1858.**Acila castrensis** Hinds, 1844.

Bering Sea to San Diego, Cal.

*Family* Lediidae*Genus* **Leda** Schumacher, 1817.**Leda taphria** Dall, 1897.

Bodega Bay, Cal., to Lower California.

**Leda cellulita** Dall, 1896.

Puget Sound.

**Leda acuta** Conrad, 1832.Nazan Bay, Atka Island, Aleutians, to Gulf of California.  
Also Atlantic.**Leda minuta** Fabricius, 1776.

Arctic Ocean to San Diego, Cal. Also Atlantic.

**Leda navisa** Dall, 1916.

Farallones Islands to San Diego, Cal.

**Leda amiata** Dall, 1916.

Off San Diego in 488 fathoms.

**Leda penderi** Dall, 1910.

Queen Charlotte Islands to Santa Barbara Islands.

**Leda buccata** Steenstrup, 1842.

Arctic Ocean, and Bering Strait. Also Atlantic.

**Leda hamata** Carpenter, 1864.

Puget Sound to Panama Bay.

**Leda hamata**, variety *limata* Dall, 1916.

Santa Barbara to San Diego, Cal.

**Leda oxia** Dall, 1916.

Santa Rosa Island, Cal., to Gulf of California.

**Leda liogona** Dall, 1916.

Bering Sea in 1401 fathoms.

**Leda pernula** Müller, 1779.

Arctic Ocean to Plover Bay. Also Atlantic.

**Leda radiata** Krause, 1886.Arctic Ocean; Plover Bay, Eastern Siberia; Okhotsk and  
Bering Seas.

- Leda fossa** Baird, 1863.  
Kotzebue Sound, Alaska, to Puget Sound.
- Leda fossa**, variety *sculpta* Dall, 1916.  
South of Alaska Peninsula, 69 fathoms.
- Leda fossa**, variety *vaginata* Dall, 1916.  
Kasa-an Bay, Alaska, 50 fathoms.
- Leda fossa**, variety *curtulosa* Dall, 1916.  
Bering Sea and Unalashka.
- Leda pontonia** Dall, 1889.  
Santa Barbara Islands, Cal., to Peru and the Galapagos Islands, in deep water.
- Leda leonina** Dall, 1896.  
Straits of Fuca to Latitude 36° North.
- Leda amblia** Dall, 1905.  
Monterey Bay, Cal.
- Leda conceptionis** Dall, 1896.  
Aleutian Islands to San Diego, Cal.
- Leda gomphoidea** Dall, 1897.  
Off Tillamook, Oregon, 786 fathoms.
- Leda extenuata** Dall, 1897.  
Off Sitka, Alaska, 1569 fathoms.
- Leda spargana** Dall, 1916.  
Santa Barbara Islands to Point Loma, Cal.
- Leda fiascona** Dall, 1916.  
Off San Diego, Cal., in 822 fathoms.
- Leda phenaxia** Dall, 1916.  
Off San Diego, Cal., in 822 fathoms.
- Leda Dalli** Krause, 1886.  
Unalashka, Aleutian Islands.

*Genus Yoldia* Möller, 1842.

*Section Megayoldia* Verrill, 1897.

- Yoldia thraciæformis** Storer, 1838.  
Arctic Ocean to Oregon. Also Atlantic.
- Yoldia secunda** Dall, 1916.  
Southeastern Alaska, in deep water.
- Yoldia beringiana** Dall, 1916.  
Bering Sea to Anacapa Island, Cal.
- Yoldia montereyensis** Dall, 1893.  
Chirikoff Island, Alaska, to San Diego, Cal.
- Yoldia martyria** Dall, 1897.  
Kasa-an Bay, Alaska, to Gulf of California.
- Yoldia vancouverensis** Smith, 1880.  
Vancouver Island (Smith).

*Section Yoldia s. s.*

- Yoldia myalis** Couthouy, 1838.  
Arctic Ocean to Puget Sound. Also Atlantic.
- Yoldia cooperi** Gabb, 1865.  
San Francisco Bay to San Diego, Cal.
- Yoldia limatula** Say, 1831.  
Arctic Ocean to San Diego. Also Atlantic.

*Section Cnesterium Dall, 1898.*

- Yoldia scissurata** Dall, 1898.  
Arctic Ocean to Sitka, Alaska.
- Yoldia seminuda** Dall, 1871.  
Okhotsk and Bering Seas to Sitka, Alaska.
- Yoldia ensifera** Dall, 1897.  
Southeastern Alaska to San Luis Obispo, Cal.
- Yoldia ensifera**, variety *plena* Dall, 1908.  
San Diego, Cal., 80 fathoms.

*Section Yoldiella Verrill, 1897.*

- Yoldia siliqua** Reeve, 1856.  
Norton Sound, Alaska. Also Atlantic.
- Yoldia intermedia** Sars, 1865.  
Bering Strait and Norton Sound. Circumboreal.
- Yoldia orcia** Dall, 1916.  
Tillamook Bay, Oregon, to San Diego.
- Yoldia sanesia** Dall, 1916.  
Boca de Quadra, Alaska, to Point Conception, Cal.
- Yoldia oleacina** Dall, 1916.  
Arctic Ocean north of Bering Strait.
- Yoldia capsa** Dall, 1916.  
Off Tillamook Bay, Oregon, in 786 fathoms.
- Yoldia cecinella** Dall, 1916.  
Aleutian Islands to Gulf of California.

*Section Portlandia Mörch, 1853.*

- Yoldia glacialis** Gray, 1828.  
Arctic Ocean at Point Barrow. Also Atlantic.

*Genus Pleurodon Wood, 1840.**Subgenus Cyrilla A. Adams, 1860.*

- Cyrilla munita** Carpenter, 1898.  
Santa Barbara Islands to Gulf of California.

*Genus Malletia* Desmoulins, 1832.

- Malletia talama** Dall, 1916.  
Bering Sea to Oregon.
- Malletia pacifica** Dall, 1897.  
Chignik Bay, Alaska, to Monterey, Cal.
- Malletia faba** Dall, 1897.  
Queen Charlotte Islands, B. C., to Lower California.
- Malletia flora** Dall, 1916.  
Off Sitka, Alaska, 1569 fathoms.

*Genus Tindaria* Bellardi, 1875.

- Tindaria californica** Dall, 1916.  
Santa Barbara to San Diego, Cal.
- Tindaria gibbsii** Dall, 1897.  
Queen Charlotte Islands to Coronado Islands.
- Tindaria dicofania** Dall, 1916.  
Off San Diego, Cal., in 822 fathoms.
- Tindaria cervola** Dall, 1916.  
Off San Diego, Cal., in 822 fathoms.
- Tindaria brunnea** Dall, 1916.  
Bering Sea to Tillamook, Oregon.
- Tindaria mexicana** Dall, 1908.  
San Diego, Cal., to Acapulco, Mexico, in deep water.
- Tindaria kennerlyi** Dall, 1897.  
Off Sitka, Alaska, to Santa Barbara Islands, in deep water.
- Tindaria martiniana** Dall, 1916.  
Cape San Martin to Santa Barbara Islands, in deep water.
- Tindaria ritteri** Dall, 1916.  
Off La Jolla, Cal., 293 fathoms.

## (FILIBRANCHIATA)

*Superfamily Arcacea**Family Arcidae**Genus Glycymeris* Da Costa, 1778.

- Glycymeris septentrionalis** Middendorff, 1849.  
Aleutian Islands to Forrester Island, Alaska.
- Glycymeris subobsoleta** Carpenter, 1864.  
Aleutian Islands to Puget Sound.
- Glycymeris corteziana** Dall, 1916.  
Forrester Island, Alaska, to Cortez Bank, Cal.
- Glycymeris migueliana** Dall, 1916.  
Cape Blanco, Oregon, to Magdalena Bay, Lower California, and the Cortez Bank.

**Glycymeris multicostata** Sowerby, 1832.

( ? Monterey, Cal.,) to Gulf of Cal. and Costa Rica.

*Genus* Limopsis Sasso, 1827.*Section* Limopsis s. s.**Limopsis skenia** Dall, 1916.

Bowers Bank, Bering Sea, 30 fathoms.

**Limopsis akutanica** Dall, 1916.

Off Akutan Island, Aleutians, 72 fathoms.

**Limopsis diegensis** Dall, 1908.

Santa Barbara Islands to Coronado Islands.

*Section* Empleconia Dall, 1908.**Limopsis vaginatus** Dall, 1891.

Bering Sea and Aleutian Islands.

*Genus* Arca Linné, 1758.*Subgenus* Barbatia Gray, 1847.*Section* Fossularca Cossmann, 1887.**Barbatia solida** Broderip and Sowerby, 1833.

San Diego, Cal., to Panama.

*Section* Acar Gray, 1847.**Barbatia reticulata** Gmelin, 1792.

San Diego to Ecuador. Also Atlantic.

*Subgenus* Scapharca Gray, 1847.**Scapharca multicostata** Sowerby, 1833.

San Diego, Cal., to Gulf of California.

*Section* Bathyarca Kobelt, 1891.**Scapharca nucleator** Dall, 1908.

San Diego, Cal., to Panama.

**Scapharca (corpulenta** Smith, 1885, variety ?) *pompholyx* Dall, 1908.

Off Santa Barbara, Cal., to the Galapagos Islands and Mid Pacific, in deep water.

*Superfamily* Pteriacea*Family* Pinnidae*Genus* Atrina (Gray) Adams, 1857.**Atrina oldroydi** Dall, 1901.

Off San Pedro, Cal., in 25 fathoms.

*Family Pteriidae**Genus Pteria* Scopoli, 1777.**Pteria viridizona** Dall, 1916.

Long Beach, California (Lowe).

*? Family Philobryidae**Genus Philobrya* Carpenter, 1872.**Philobrya setosa** Carpenter, 1864.

Forrester Island, Alaska, to Gulf of California.

*Superfamily Ostracea**Family Ostreidae**Genus Ostrea* Linné, 1758.**Ostrea veatchii** Gabb, 1866.

Fossil at San Diego; living in the Gulf of California.

**Ostrea palmula** Carpenter, 1857.

Puget Sound to Gulf of California.

**Ostrea lurida** Carpenter, 1864.

Sitka to Cape St. Lucas.

**Ostrea elongata** Solander, 1786, var. *virginica* Gmelin, 1792.

Imported from the Atlantic Coast.

*Superfamily Pectinacea**Genus Pecten* Müller, 1776.*Subgenus Pecten* s. s.**Pecten diegensis** Dall, 1898.

Monterey to San Diego and the Cortez Bank.

*Subgenus Chlamys* Bolten, 1798.**Chlamys hericius** Gould, 1850.

Port Althorp, Alaska, to San Diego, California.

**Chlamys hericius** Gould, var. (?) *albidus* Dall, 1914.

Aleutian Islands.

**Chlamys hastatus** Sowerby, 1843.

Monterey to San Pedro, California.

**Chlamys hindsii** Carpenter, 1864.

Bering Sea to Cape St. Lucas.

**Chlamys hindsii** variety *navarchus* Dall, 1898.

Bering Sea to San Diego, Cal.

**Chlamys islandicus** Müller, 1776.

Arctic Ocean to Kamchatka and Puget Sound. Also Atlantic.

**Chlamys islandicus**, var. *beringianus* Middendorff, 1849.  
Bering Sea.

**Chlamys paucicostatus** Carpenter, 1864.  
Catalina Island, Cal., to Gulf of California.

*Section Patinopecten* Dall, 1898.

**Chlamys caurinus** Gould, 1850.  
Wrangell, Alaska, to Siletz Bay, Oregon.

*Section Leptopecten* Verrill, 1897.

**Chlamys latiauritus** Conrad, 1837.  
Monterey, Cal., to Lower California.

**Chlamys latiauritus** var. *monotimeris* Conrad, 1837.  
Monterey, Cal., to the Gulf of California.

**Chlamys latiauritus** var. *fucicolus* Dall, 1898.  
On floating kelp.

**Chlamys tumbezensis** Philippi, 1846.  
Santa Barbara, Cal., to Peru.

*Section Plagioctenium* Dall, 1898.

**Chlamys circularis** Sowerby, 1835.  
Monterey, Cal., to Payta, Peru.

*Subgenus Pseudamusium* H. & A. Adams, 1858.

**Pseudamusium randolphi** Dall, 1897.  
Bering Sea to Guaymas, Mexico.

**Pseudamusium tillamookense** Arnold, 1906.  
Pribiloff Islands, Bering Sea, to San Diego.

**Pseudamusium vancouverense** Whiteaves, 1893.  
Bering Sea to San Diego, Cal.

**Pseudamusium davidsoni** Dall, 1897.  
Davidson and Bowers Banks, Bering Sea.

**Pseudamusium bistriatum** Dall, 1916.  
Off San Diego, Cal., 822 fathoms.

**Pseudamusium incongruum** Dall, 1916.  
Off San Diego, Cal., in 684 fathoms.

*Subgenus Propeamusium* Gregorio, 1883.

**Propeamusium alaskense** Dall, 1871.  
Pribiloff Islands, Bering Sea, and southward to the Santa Barbara Islands, California. Japan.

*Genus* Hinnites Defrance, 1821.

**Hinnites giganteus** Gray, 1825.

Aleutian Islands to Magdalena Bay, Lower California.

*Family* Limidae

*Genus* Lima (Bruguère) Cuvier, 1798.

*Subgenus* Mantellum Bolten, 1798.

**Mantellum dehiscens** Conrad, 1837.

Monterey, Cal., to Acapulco, Mexico.

*Subgenus* Limatula S. Wood, 1839.

**Limatula attenuata** Dall, 1916.

Southern Bering Sea, the Aleutian Islands and eastward to the Shumagin Islands, Alaska.

**Limatula subauriculata** Montagu, 1808.

British Columbia to San Quentin Bay, Lower California.  
Also Atlantic.

*Superfamily* Anomiacea

*Family* Anomiidae

*Genus* Anomia Linné, 1758.

**Anomia peruviana** Orbigny, 1846.

San Pedro, Cal., to Peru and the Galapagos Islands.

*Genus* Pododesmus Philippi, 1837.

*Subgenus* Monia Gray, 1849.

**Monia macroschisma** Deshayes, 1839.

Southern Bering Sea from the Pribiloff Islands to Japan and the Okhotsk Sea on the west, and eastward along the whole coast to Lower California.

*Superfamily* Mytilacea

*Family* Mytilidae

*Genus* Mytilus Linné, 1758.

**Mytilus californianus** Conrad, 1837.

Unalashka, Aleutian Islands, eastward and southward to Socorro Island.

**Mytilus edulis** Linné, 1758.

Arctic Ocean to San Diego, and worldwide in temperate waters.

*Section* Hormomya Mörch, 1853.

**Mytilus adamsianus** Dunker, 1856.

Santa Barbara, Cal., to Panama and the Galapagos Islands.

*Genus Septifer* Recluz, 1848.**Septifer bifurcatus** (Conrad) Reeve, 1837.

Crescent City, Cal., to Gulf of California.

**Septifer bifurcatus** var. *obsoletus* Dall, 1916.

San Diego, Cal.

*Genus Modiolus* Lamarck, 1799.**Modiolus modiolus** Linné, 1758.

Circumboreal. On the Pacific side Arctic and Bering Seas and southward to San Pedro, Cal., and the outlying islands.

**Modiolus rectus** Conrad, 1837.

Bollinas Bay, Cal., to Magdalena Bay, Lower California.

**Modiolus flabellatus** Gould, 1850.

Vancouver Island to San Diego, Cal.

**Modiolus capax** Conrad, 1837.

Santa Barbara, Cal., to Payta, Peru.

**Modiolus fornicatus** Carpenter, 1864.

Monterey to San Pedro and Cortez Bank, California.

**Modiolus politus** Verrill, 1880, var. *pallidulus* Dall, 1916.

Off Bodega Head, Cal., and south to Cerros Island, Lower California, in deep water.

*Subgenus Gregariella* Monterosato, 1883.**Gregariella opifex** Say, 1825.

Santa Barbara, Cal., to Gulf of California.

*Subgenus Brachydontes* Swainson, 1840.**Brachydontes demissus** Dillwyn, 1817.

Imported with "seed" oysters from the Atlantic Coast. San Francisco Bay, on oyster beds.

*Genus Botula* Mörch, 1853.*Subgenus Adula* H. and A. Adams, 1857.**Adula diegensis** Dall, 1911.

San Francisco Bay, to Cape St. Lucas. Free.

**Adula falcata** Gould, 1851.

Coos Bay, Oregon, to San Diego, Cal. Burrowing.

**Adula californiensis** Philippi, 1847.

Vancouver Island to San Diego, Cal. North Japan. Burrowing.

*Genus Dacrydium* Torell, 1859.**Dacrydium pacificum** Dall, 1916.

Bering Sea, 1401 fathoms.

*Genus Lithophaga* Bolten, 1798.

*Section Diberus* Dall, 1898.

**Lithophaga plumula** Hanley, 1844.

Monterey, Cal., to Patagonia. Also Atlantic.

*Section Labis* Dall, 1916.

**Lithophaga attenuata** Deshayes, 1836.

San Diego to Patagonia.

*Section Myoforceps* Fischer, 1886.

**Lithophaga aristata** Dillwyn, 1817.

La Jolla, San Diego Co., Cal., to Peru. Also Atlantic.

*Genus Musculus* Bolten, 1798.

**Musculus niger** Gray, 1824.

Circumboreal. Arctic Ocean to Oregon.

**Musculus niger** variety *obesus* Dall, 1916.

Arctic Ocean to Cape Flattery.

**Musculus protractus** Dall, 1916.

Nunivak Island, Bering Sea, to Monterey.

**Musculus olivaceus** Dall, 1916.

Bering Sea to Catalina Island, Cal.

**Musculus impressus** Dall, 1907.

Petrel Bank, Bering Sea.

**Musculus taylori** Dall, 1897.

Victoria, Vancouver Island.

**Musculus lævigatus** Gray, 1824.

Circumboreal. Arctic Ocean to Puget Sound.

**Musculus discors** Linné, 1768.

Circumboreal. Arctic Ocean to Puget Sound.

**Musculus vernicosus** Middendorff, 1849.

Bering Sea to Sitka.

**Musculus phenax** Dall, 1915.

St. George Island, Bering Sea.

**Musculus marmoratus** Forbes, 1838.

Circumboreal. Puget Sound. (P. P. C.).

**Musculus seminudus** Dall, 1897.

Bering Sea to Forrester Island, Alaska.

*Genus Crenella* Brown, 1827.

**Crenella decussata** Montagu, 1808.

Bering Sea to the Santa Barbara Islands, Cal. Atlantic.

**Crenella leana** Dall, 1897.

Aleutian Islands, eastward to Middleton Island, Alaska.

- Crenella columbiana** Dall, 1897.  
Aleutian Islands to San Diego, Cal.
- Crenella divaricata** Orbigny, 1847.  
Santa Barbara Islands to Panama Bay. Also West Indies.
- Crenella grisea** Dall, 1897.  
Bering Sea to Sitka, Alaska.
- Crenella rotundata** Dall, 1916.  
Santa Cruz Island, Cal., in 155 fathoms.

## ORDER ANOMALODESMACEA.

## A. ENSIPHONIA

*Family Periplomatidae**Genus Periploma* Schumacher, 1817.

- Periploma planiuscula** Sowerby, 1834.  
San Pedro, Cal., to Guayaquil.
- Periploma discus** Stearns, 1890.  
San Pedro Bay, Cal., to San Diego.

*Section Halistrepta* Dall, 1904.

- Periploma sulcata** Dall, 1904.  
San Pedro Bay, Terminal Island, Cal.

*Family Thraciidae**Genus Thracia* (Leach) Blainville, 1824.

- Thracia curta** Conrad, 1837.  
Arctic Ocean, Bering Sea, and south to San Diego, Cal.
- Thracia beringi** Dall, 1915.  
Bering Sea, Aleutian Islands and southward to Sitka, Alaska.
- Thracia challsiana** Dall, 1915.  
Forrester Island, Alaska, to Gulf of Georgia.
- Thracia diegensis** Dall, 1915.  
San Diego Bay, Cal.

*Genus Cyathodonta* Conrad, 1849.

- Cyathodonta dubiosa** Dall, 1915.  
San Pedro to San Diego and the Gulf of California.
- Cyathodonta pedroana** Dall, 1915.  
San Pedro Harbor and Catalina Island, Cal.

*Genus Asthenothærus* Carpenter, 1864.

- Asthenothærus villosior** Carpenter, 1864.  
San Pedro, Cal., to Cape St. Lucas.

## B. ADELOSIPHONIA

*Family Pandoridae**Genus Pandora* Hwass, 1795.*Subgenus Kennerlyia* Carpenter, 1864.**Kennerlyia grandis** Dall, 1877.

Pribiloff Islands, Bering Sea, to Siletz Bay, Oregon.

**Kennerlyia glacialis** Leach, 1819.

Arctic Ocean and south to Fuca Straits. Also Atlantic.

**Kennerlyia glacialis** var. *cutaenia* Dall, 1915.

Port Etches, Alaska.

**Kennerlyia filosa** Carpenter, 1864.

Nunivak Island, Bering Sea, to San Pedro, Cal.

**Kennerlyia bilirata** Conrad, 1855.

Forrester Island, Alaska, south to Point Abreojos, Lower California.

**Kennerlyia granulata** Dall, 1915.

Santa Barbara, Cal., to Gulf of California.

*Subgenus Heteroclidus* Dall, 1915.**Heteroclidus punctatus** Conrad, 1837 (*not* Cpr. 1864).

Vancouver Island to Gulf of California.

*Family Lyonsiidae**Genus Lyonsia* Turton, 1822.**Lyonsia striata** Montagu, 1815.

Circumboreal. Aleutian Islands to Fuca Straits.

**Lyonsia arenosa** Möller, 1842.

Circumboreal. Arctic Sea to Japan and the Okhotsk Sea on the west and on the east to the Aleutians and Kodiak Island, Alaska.

**Lyonsia gouldii** Dall, 1915.

San Francisco Bay, Cal., and south to Point Abreojos, Lower California.

**Lyonsia californica** Conrad, 1837.

Puget Sound to Todos Santos Bay, Lower California.

**Lyonsia californica** var. *haroldi* Dall, 1915.

Central California.

**Lyonsia** (*californica* var. ?) *nesiotes* Dall, 1915.

Catalina and Coronado Islands.

**Lyonsia pugetensis** Dall, 1913.

Chignik Bay, Alaska, to Puget Sound.

*Subgenus* Allogramma Dall, 1903.

**Allogramma amabilis** Dall, 1913.

Off Santa Barbara Channel, Cal., 534 fathoms.

*Subgenus* Entodesma Philippi, 1845.

**Entodesma inflatum** Conrad, 1837.

In sponges, Vancouver Island to Guayaquil.

*Section* Agriodesma Dall, 1909.

**Entodesma saxicola** Baird, 1863.

Aleutian Islands to San Pedro, Cal.

**Entodesma scammoni** Dall, 1871.

Port Simpson, British Columbia, (Scammon).

*Genus* Mytilimeria Conrad, 1837.

**Mytilimeria nuttallii** Conrad, 1837.

In compound Ascidians. Vancouver Island to San Diego, Cal.

*Superfamily* Poromyacea

*Family* Poromyacidae

*Subgenus* Dermatomya Dall, 1908.

**Dermatomya tenuiconcha** Dall, 1913.

Alaska Peninsula to Coronado Islands, in deep water.

**Dermatomya buttoni** Dall, 1916.

Monterey, Cal., (Button).

**Dermatomya beringiana** Dall, 1916.

Aleutian Islands to Tillamook, Oregon.

**Dermatomya leonina** Dall, 1916.

Off coast of Washington, 877 fathoms.

*Genus* Cetoconcha Dall, 1886.

**Cetoconcha malespinæ** Dall, 1916.

S. W. of Sitka, Alaska, 1579 fathoms.

(?) *Family* Lyonsiellidae

*Genus* Lyonsiella M. Sars, 1872.

**Lyonsiella alaskana** Dall, 1894.

S. W. of Sitka, 1659 fathoms, and off Catalina Island, Cal., in 600 fathoms.

*Family Cuspidariidae**Genus Cuspidaria* Nardo, 1840.*Section Cardiomya* A. Adams, 1864.

- Cuspidaria pectinata** Carpenter, 1864.  
Monterey, Cal., to Panama Bay.
- Cuspidaria beringensis** Leche, 1883.  
Bering Sea to Kadiak Island and Panama Bay.
- Cuspidaria californica** Dall, 1886.  
Puget Sound to San Diego, Cal.
- Cuspidaria planetica** Dall, 1908.  
Pribiloff Islands, Bering Sea, to Coronado Islands; Lower California, in deep water.
- Cuspidaria balboæ** Dall, 1916.  
Cortez Bank, Cal., 60 fathoms.
- Cuspidaria glacialis** G. O. Sars, 1878.  
Off San Diego, Cal., 239 fathoms. Also Atlantic.
- Cuspidaria apodema** Dall, 1916.  
Off Sitka, Alaska, and south to Panama Bay, in deep water.
- Cuspidaria chilensis** Dall, 1889.  
Off Oregon in 277 fathoms and south to coast of Chile in 1036 fathoms.

*Genus Myonera* Dall and Smith, 1886.

- Myonera tillamookensis** Dall, 1916.  
Off Tillamook Bay, Oregon, 786 fathoms.

*Genus Leiomya* A. Adams, 1864.*Subgenus Plectodon* Carpenter, 1864.

- Plectodon scaber** Carpenter, 1864.  
Catalina Island, Cal., to San Diego.

*Family Verticordiidae**Genus Verticordia* Wood, 1844.

- Verticordia ornata** Orbigny, 1846.  
Catalina Island, Cal., to Panama Bay. Also Japan and the Antilles.

## ORDER TELEODESMACEA.

*Superfamily Astartacea**Family Astartidae**Genus Astarte* Sowerby, 1816.*Section Astarte* s. s.

- Astarte polaris** Dall, 1903.  
Aleutian and Shumagin Islands, Alaska. Circumboreal.

*Section Tridonta* Schumacher, 1817.

- Astarte rollandi** Bernardi, 1858.  
Pribiloff and Aleutian Islands to Prince William Sound,  
Alaska. Also Kamchatka.
- Astarte rollandi** var. *loxia* Dall, 1903.  
Semidi Islands, Alaska.
- Astarte arctica** Gray, 1824.  
Circumboreal. Arctic and Bering Sea and the Aleutian  
Islands.
- Astarte borealis** Schumacher, 1817.  
Polar and Bering Seas, North Japan, and eastward to  
Prince William Sound, Alaska.
- Astarte alaskensis** Dall, 1903.  
Southern Bering Sea, the Aleutians and south to Puget  
Sound.
- Astarte compacta** Carpenter, 1865.  
Puget Sound.
- Astarte fabula** Reeve, 1855.  
Circumboreal. Arctic Sea and south in Bering Sea to  
Nunivak Island.
- Astarte bennettii** Dall, 1903.  
Polar Sea at Bennett Island, and south in Bering Sea to  
Nunivak Island.
- Astarte vernicosa** Dall, 1903.  
Arctic and Bering Seas. Attu to Atka Islands in the  
Aleutian chain.

*Section Rictocyma* Dall, 1872.

- Astarte esquimalti** Baird, 1863.  
Aleutian Islands to Puget Sound.

*Genus Bernardina* Dall, 1910.

- Bernardina bakeri** Dall, 1910.  
Coronado Islands.

*Family Crassatellitidae**Genus Crassatellites* Kruger, 1823.

- Crassatellites fluctuatus** Carpenter, 1864.  
Santa Barbara Islands, Cal.

*Genus Crassinella* Guppy, 1875.

- Crassinella branneri** Arnold, 1903.  
San Diego, Cal., to Panama. Pleistocene of San Pedro,  
Cal.

*Superfamily Carditacea**Family Carditidæ**Genus Cardita* (Brugière) Lamarck, 1799.*Section Carditamera* Conrad, 1838.***Cardita subquadrata*** Carpenter, 1865.

Queen Charlotte Islands to Todos Santos Bay.

*Genus Venericardia* Lamarck, 1801.*Section Cyclocardia* Conrad, 1867.***Venericardia barbarensis*** Stearns, 1890.

Santa Barbara Channel to San Diego, Cal., in deep water.

***Venericardia gouldii*** Dall, 1902.

Off San Diego, Cal.

***Venericardia stearnsii*** Dall, 1902.

Puget Sound.

***Venericardia paucicostata*** Krause, 1885.

Arctic Sea to Fuca Straits.

***Venericardia crebricostata*** Krause, 1885.

Point Barrow, Alaska, to Monterey, Cal.

***Venericardia crassidens*** Broderip and Sowerby, 1829.

Arctic and Bering Seas and eastward to Kadiak Island, Alaska.

***Venericardia nodulosa*** Dall.

Santa Barbara to the Coronado Islands.

***Venericardia monilicosta*** Gabb, 1861.

Santa Barbara, Pleistocene. Recent ?

***Venericardia ventricosa*** Gould, 1850.

Belkoffski Bay, Alaska, to Coronado Islands and Cortez Bank, Cal.

***Venericardia incisa*** Dall, 1902.

Unalashka to the Semidi Islands, Alaska.

*Subgenus Miodontiscus* Dall, 1903.***Miodontiscus prolongatus*** Carpenter, 1864.

Middleton Island, Alaska, to San Diego, Cal.

***Miodontiscus meridionalis*** Dall, 1916.

Off Point Loma, Cal., 70 fathoms.

*Genus Calyptogena* Dall, 1891.***Calyptogena pacifica*** Dall, 1891.

Clarence Strait, Alaska, to Santa Barbara Channel, Cal.

***Calyptogena elongata*** Dall, 1916.

Santa Barbara Islands to San Diego, Cal.

*Genus* Milneria Dall, 1881.

**Milneria minima** Dall, 1871.

Monterey to Todos Santos Bay, Lower Cal., on *Haliotis*.

**Milneria kelseyi** Dall, 1916.

Monterey to Point Abrejos, Lower Cal.

*Superfamily* Chamacea

*Family* Chamidæ

*Genus* Chama Linné, 1758.

**Chama pellucida** Broderip, 1834.

Oregon to Chile, and Galapagos Islands.

**Chama exogyra** Conrad, 1838.

Oregon to Panama.

**Chama frondosa** Broderip, 1834.

San Diego, Cal., to Peru.

**Chama buddiana** C. B. Adams, 1850.

Monterey, Cal., to Panama.

*Superfamily* Lucinacea

*Family* Thyasiridæ

*Genus* Thyasira (Leach in) Lamarck, 1818.

**Thyasira bisecta** Conrad, 1849.

Off Alaska Peninsula and southward to Puget Sound.

Also Miocene and Pliocene.

**Thyasira gouldii** Philippi, 1845.

Bering Strait to San Diego. Also Atlantic.

**Thyasira trisinuata** Orbigny, 1846.

Sitka, Alaska, to San Diego, Cal. Also Atlantic.

**Thyasira trisinuata** var. *polygona* Jeffreys, 1863.

Korea. Gulf of Alaska to San Diego. Also Atlantic.

**Thyasira cygnus** Dall, 1916.

Southeastern Alaska.

**Thyasira barbarensis** Dall, 1889.

Fuca Straits to Gulf of California.

**Thyasira excavata** Dall, 1901.

Oregon to Gulf of California.

**Thyasira tricarinata** Dall, 1916.

Off Santa Barbara Islands, Cal., in 1100 fathoms.

*Subgenus* Axinulus Verrill & Bush, 1898.

**Axinulus ferruginosus** Forbes, 1844.

Aleutian Islands. Also Atlantic and Arctic.

*Genus Axinopsis* G. O. Sars, 1878.

**Axinopsis viridis** Dall, 1901.

Arctic Ocean, on the west to northern Japan, on the east to the Aleutian and Coronado Islands.

**Axinopsis sericatus** Carpenter, 1864.

Aleutian Islands south and east to Puget Sound, and Catalina Island, Cal.

*Family Diplodontidae*

*Genus Diplodonta* Bronn, 1831.

**Diplodonta aleutica** Dall, 1901.

Cape Lisburne, Arctic Ocean, to the Aleutians and eastward to Sitka Bay, Alaska.

**Diplodonta orbella** Gould, 1852.

Pribiloff Islands, Bering Sea, to Gulf of California.

**Diplodonta subquadrata** Carpenter, 1855.

Catalina Island, Cal., to Panama.

*Subgenus Felaniella* Dall, 1899.

**Felaniella sericata** Reeve, 1850.

San Diego, Cal., to Panama.

*Family Lucinidae*

*Genus Phacoides* Gray, 1847.

*Subgenus Here* Gabb, 1866.

**Here richthofeni** Gabb, 1866.

San Pedro, Cal., to Cape St. Lucas.

*Subgenus Lucinisca* Dall, 1901.

**Lucinisca nuttallii** Conrad, 1837.

Santa Barbara, Cal., to Mazatlan, Mexico.

*Subgenus Lucinoma* Dall, 1901.

**Lucinoma annulata** Reeve, 1850.

Port Althorp, Alaska, to Coronado Islands.

**Lucinoma annulata** var. *densilineata* Dall.

Sitka, Alaska, to Esteros Bay, Cal.

**Lucinoma aequizonata** Stearns, 1890.

Santa Barbara Islands to S. Lat. 38° (Chile).

*Subgenus Callucina* Dall, 1901.

*Section Epilucina* Dall, 1901.

**Callucina californica** Conrad, 1837.

Crescent City, Cal., to San Ignacio Lagoon, Lower Cal.

*Subgenus* Parvilucina Dall, 1901.

**Parvilucina tenuisculpta** Carpenter, 1865.

Nunivak Island, Bering Sea, to the Coronado Islands,  
Lower Cal.

**Parvilucina approximata** Dall, 1901.

Monterey, Cal., to Panama.

*Genus* Divaricella Martens, 1880.

**Divaricella perparvula** Dall, 1901.

"Monterey" (Gabb). Cape St. Lucas to Ecuador.

*Superfamily* Leptonacea

*Family* Leptonidæ

*Genus* Erycina Lamareck, 1806.

**Erycina catalina** Dall, 1916.

Catalina Island, Cal.

**Erycina coronata** Dall, 1916.

Off Coronado Islands, Lower Cal.

**Erycina bakeri** Dall, 1916.

Off South Coronado Island, Lower Cal.

**Erycina balliana** Dall, 1916.

Off South Coronado Island, Lower Cal.

**Erycina chacei** Dall, 1916.

Santa Rosa Island to Coronado Islands:

**Erycina santarosæ** Dall, 1916.

Santa Rosa Island, Cal.

*Genus* Kellia Turton, 1822.

**Kellia laperousei** Deshayes, 1839.

Bering and Pribiloff Islands, Bering Sea, and south to  
San Diego, Cal.

**Kellia suborbicularis** Montagu, 1804.

Bering Island, the Aleutians, and south to Panama. Also  
Atlantic.

*Genus* Aligena H. C. Lea, 1845.

**Aligena cerittensis** Arnold, 1903.

Pleistocene, San Pedro, Cal. Recent ?

*Genus* Rochefortia Velain, 1846.

**Rochefortia tumida** Carpenter, 1864.

Shumagin Islands, Alaska, to San Diego, Cal.

**Rochefortia planata** Dall, 1899.

Icy Cape, Arctic Ocean, south to the Shumagin Islands,  
Alaska.

- Rochefortia ferruginosa** Dall, 1916.  
San Francisco Bay, to Santa Rosa Island, Cal.
- Rochefortia beringensis** Dall, 1916.  
Bering Island, Bering Sea.
- Rochefortia grebnitzskii** Dall, 1916.  
Bering Island, Bering Sea.
- Rochefortia aleutica** Dall, 1899.  
Bering Sea to Coronado Islands.
- Rochefortia compressa** Dall, 1913.  
Shumagin Islands, Alaska, to Gulf of California.
- Rochefortia pedroana** Dall, 1899.  
San Pedro, Cal.
- Rochefortia grippi** Dall, 1912.  
San Diego, Cal.
- Rochefortia golischi** Dall, 1916.  
Off Santa Rosa Island, Cal.

*Genus Serridens* Dall, 1899.

- Serridens oblonga** Carpenter, 1865.  
San Pedro to Coronado Islands.

*Genus Pseudopythina* Fischer, 1884.

- Pseudopythina rugifera** Carpenter, 1864.  
Commensal with *Gebia*. Puget Sound.
- Pseudopythina compressa** Dall, 1899.  
Cape Lisburne, Arctic Ocean, to Acapulco. Commensal with Crustacean.
- Pseudopythina myaciformis** Dall, 1916.  
Commensal with Crustacean. Puget Sound.

*Genus Bornia* Philippi, 1836.

- Bornia retifera** Dall, 1899.  
Monterey to Santa Barbara Islands, Cal.

*Genus Lepton* Turton, 1822.

- Lepton meroeum** Carpenter, 1864.  
San Diego, Cal.

*Genus Lasæa* Leach, 1827.

- Lasæa rubra** Montagu, 1804.  
Vancouver Island, B. C., to Callao, Peru. Also Atlantic.

*Genus Turtonia* Alder, 1848.**Turtonia minuta** Fabricius, 1780.

Bering Strait and south to Magdalena Bay, Lower Cal.,  
also Northern Atlantic.

**Turtonia occidentalis** Dall, 1871.

Plover Bay, Bering Sea.

*Genus Sportella* Deshayes, 1858.**Sportella californica** Dall, 1899.

Monterey, Cal.

*Genus Anisodonta* Deshayes, 1858.**Anisodonta? pellucida** Dall, 1916.

Monterey Bay, Cal., off Del Monte.

*Family Chlamydoconchidae**Genus Chlamydoconcha* Dall, 1884.**Chlamydoconcha orcutti** Dall, 1884.

False Bay, San Diego Co., Cal.

*Superfamily Cardiacea**Family Cardiidae**Genus Cardium* Linné, 1758.*Subgenus Trachycardium* Mörch, 1853.**Trachycardium quadragenarium** Conrad, 1837.

Santa Barbara, Cal., to Todos Santos Bay, L. Cal.

*Subgenus Cerastoderma* Mörch, 1853.**Cerastoderma corbis** Martyn, 1784.

Nunivak, Pribiloff, and Commander Islands, Bering Sea,  
south to Hakodate, Japan, and San Diego, Cal. (Lower  
Cal. ?)

**Cerastoderma ciliatum** Fabricius, 1780.

Circumboreal. Arctic Ocean and southward to Puget  
Sound and North Japan.

**Cerastoderma decoratum** Grewingk, 1850.

Pleistocene of Alaska and British Columbia. Recent?

**Cerastoderma californiense** Deshayes, 1839.

Arctic Ocean to San Diego, Cal., North Japan and  
Okhotsk Sea.

**Cerastoderma californiense** var. *comoxense* Dall, 1900.

Pleistocene of Vancouver Island. Recent?

**Cerastoderma fucanum** Dall, 1907.

Southern Bering Sea, off Unimak Island, and south to Fuca Straits.

? *Subgenus* Ringicardium Fischer, 1887.

**Ringicardium procerum** Sowerby, 1833.

Pleistocene, San Diego. Cerros Island to Payta, Peru.

*Subgenus* Fragum Bolten, 1798.

**Fragum biangulatum** Sowerby, 1829.

San Pedro, Cal., to Panama.

*Subgenus* Trigoniocardia Dall, 1900.

**Trigoniocardia eudoxia** Dall, 1916.

Catalina Island, Cal., to Gulf of California.

*Subgenus* Laevicardium Swainson, 1840.

**Laevicardium elatum** Sowerby, 1833.

San Pedro, Cal., south to Panama.

**Laevicardium substriatum** Conrad, 1837.

Catalina Island and San Pedro, Cal., to Acapulco.

*Genus* Serripes Beck, 1841.

**Serripes gronlandicus** Gmelin, 1792.

Circumboreal. Arctic Seas and south to Hakodate, Japan, and Puget Sound.

**Serripes laperousei** Deshayes, 1839.

Bering Strait to Hakodate, Japan, and Sitka, Alaska.

*Genus* Protocardia Beyrich, 1845.

**Protocardia centifilosa** Carpenter, 1864.

Bodega Bay to Lower California.

**Protocardia centifilosa** var. *richardsonii* Whiteaves, 1878.

Queen Charlotte Islands to San Francisco.

*Family* Vesicomycidae

*Genus* Vesicomya Dall, 1886.

**Vesicomya ovalis** Dall, 1895.

Clarence Strait, Alaska, 322 fathoms, and in Panama Bay, in 1672 fathoms.

**Vesicomya lepta** Dall, 1895.

Off Tillamook, Oregon, and south to the Gulf of California, in deep water.

**Vesicomya stearnsii** Dall, 1895.

Off La Jolla, Cal., and south to the Gulf of California, in deep water.

*Subgenus Archivesica* Dall, 1908.

**Archivesica gigas** Dall, 1895.

Off Point Sur, Cal., and in the Gulf of California in deep water.

*Superfamily Veneracea*

*Family Veneridæ*

*Subfamily Dosiniinae*

*Genus Dosinia* Scopoli, 1777.

*Section Dosinidia* Dall, 1902.

**Dosinia ponderosa** Gray, 1838.

San Diego, Cal., and south to Payta, Peru.

*Subfamily Meretricinae*

*Genus Tivela* Link, 1807.

*Subgenus Pachydesma* Conrad, 1854.

**Pachydesma stultorum** Mawe, 1823.

Santa Cruz, Cal., and south to Socorro Island.

*Genus Transennella* Dall, 1883.

**Transennella tantilla** Gould, 1853.

Sitka Harbor, Alaska, and south to Lower California.

*Genus Amiantis* Carpenter, 1863.

**Amiantis callosa** Conrad, 1837.

San Pedro, Cal., to Gulf of Tehuantepec.

*Genus Pitaria* (Roemer) 1857.

**Pitaria newcombiana** Gabb, 1865.

Monterey, Cal., to the Gulf of California and Clarion Island.

*Genus Antigona* Schumacher, 1817.

*Section Ventricola* Roemer, 1857.

**Antigona fordii** Yates, 1890.

Monterey, Cal., to Lower California. Panama?

*Genus Saxidomus* Conrad, 1837.

**Saxidomus nuttallii** Conrad, 1837.

Baulinas Bay, Cal., to San Diego.

**Saxidomus giganteus** Deshayes, 1839.

Aleutian Islands from Attu eastward and south to Monterey, Cal.

- Saxidomus giganteus** var. *brevis* Dall, 1916.  
Admiralty Island, Alaska, to Tacoma, Wash.

*Subfamily Venerinae*  
*Genus Chione* Megerle, 1811.

- Chione fluctifraga** Sowerby, 1853.  
San Pedro, Cal., to the Gulf of California.  
**Chione undatella** Sowerby, 1853.  
San Pedro, Cal., and south to Guayaquil.  
**Chione succincta** Valenciennes, 1833.  
San Pedro, Cal., to Panama.

*Genus Venus* (L.) Lamareck, 1799.

- Venus kenneicottii** Dall, 1871.  
Neeah Bay, Wash., to Little River, Mendocino Co., Cal.

*Genus Marcia* H. & A. Adams, 1857.

- Marcia kennerlyi** (Cpr.) Reeve, 1863.  
Kadiak Island, Alaska, to Carmel Bay, Cal.

*Section Venerella* Cossmann, 1886.

- Marcia subdiaphana** Carpenter, 1864.  
Sannakh Islands, Alaska, to the Santa Barbara Islands,  
Cal.

*Genus Paphia* Bolten, 1798.  
*Subgenus Protothaca* Dall, 1902.  
*Section Callithaca* Dall, 1902.

- Protothaca tenerrima** Carpenter, 1856.  
Puget Sound to San Quentin Bay, Lower Cal.

*Section Protothaca* s. s.

- Protothaca staminea** Conrad, 1837.  
Commander and Aleutian Islands, to Kamchatka and  
North Japan, and to Puget Sound and Socorro Island.  
**Protothaca staminea** var. *staminea* Conrad, 1837.  
Crescent City, Cal., to Socorro Island.  
**Protothaca staminea** var. *runderata* Deshayes, 1853.  
Southern Bering Sea, to Lobitas, Cal.  
**Protothaca staminea** var. *petitii* Deshayes, 1839.  
Aleutian Islands to San Quentin Bay, Lower California.  
**Protothaca staminea** var. *laciniata* Carpenter, 1864.  
Unalashka, Alaska, to San Diego, Cal.

**Protothaca staminea** var. *orbella* Carpenter, 1864.

Kadiak Island, Alaska, to San Diego, Cal.

**Protothaca staminea** var. *spatiosa* Dall, 1916.

Puget Sound to Anaheim Bay, Cal.

**Protothaca grata** Say, 1831.

San Pedro (Williamson). Gulf of Cal. to Panama.

*Genus Liocyma* Dall, 1870.

**Liocyma beckii** Dall, 1870.

Arctic Ocean at Point Barrow, and southward to Bering Sea and North Japan, on the east to Port Althorp, Alaska.

**Liocyma scammoni** Dall, 1871.

Port Simpson, British Columbia.

**Liocyma viridis** Dall, 1871.

Arctic Sea southward to North Japan, and on the east to the Kadiak Islands, Alaska.

*Genus Venerupis* Lamarck, 1818.

**Venerupis lamellifera** Conrad, 1837.

Monterey to San Diego, Cal.

*Subfamily Gemminae*

*Genus Gemma* Deshayes, 1853.

**Gemma gemma** Totten, 1834.

San Francisco Bay. Introduced from the Atlantic coast with "seed" oysters. (San Diego?)

*Genus Psephidia* Dall, 1902.

**Psephidia lordi** Baird, 1863.

Unalashka, Alaska, to Coronado Islands.

**Psephidia ovalis** Dall, 1902.

St. Paul Island, Bering Sea, to San Diego, Cal.

**Psephidia cymata** Dall, 1913.

Santa Barbara Islands, Cal., to Gulf of California.

? **Psephidia salmonea** Carpenter, 1864.

Catalina Island to San Diego, Cal.

**Psephidia brunnea** Dall, 1916.

Monterey, Cal., to San Ipolito Point, Lower California.

*Family Petricolidæ*

*Genus Petricola* Lamarck, 1801.

**Petricola carditoides** Conrad, 1837.

Vancouver Island to Lower California.

*Subgenus* Petricolaria Stoliczka, 1870.

**Petricolaria denticulata** Sowerby, 1834.

? *Family* Cooperellidae

*Genus* Cooperella Carpenter, 1864.

**Cooperella subdiaphana** Carpenter, 1864.

Queen Charlotte Islands to Gulf of California.

*Superfamily* Tellinacea

*Family* Tellinidae

*Genus* Tellina (L.) Lamarck, 1799.

**Tellina idae**, Dall, 1891.

Santa Barbara Islands and San Pedro, Cal.

*Subgenus* Arcopagia Leach, 1827.

*Section* Merisca Dall, 1900.

**Arcopagia lamellata** Carpenter, 1857.

San Diego, Cal., to Mazatlan.

**Arcopagia declivis** Sowerby, 1868.

Catalina Island, Cal., to Panama.

*Subgenus* Moerella Fischer, 1887.

**Moerella salmonea** Carpenter, 1864.

Aleutian Islands to San Pedro, Cal.

**Moerella meropsis** Dall, 1900.

San Diego, Cal., to the Gulf of California.

*Subgenus* Angulus Megerle, 1811.

**Angulus carpenteri** Dall, 1900.

Neeah Bay, Wash., to Gulf of California.

**Angulus panamensis** Dall, 1900.

Catalina Island, Cal., to Panama.

**Angulus modestus** Carpenter, 1864.

Vancouver Island to San Francisco, Cal.

*Subgenus* Oudardia Monterosato, 1884.

**Oudardia buttoni** Dall, 1900.

Lituya Bay, Alaska, to the Gulf of California.

*Subgenus* Peronidia Dall, 1900.

**Peronidia bodegensis** Hinds, 1844.

Vancouver Island, B. C., to Gulf of California. Japan?

**Peronidia santarosæ** Dall, 1900.

Santa Barbara Islands and San Diego, Cal.

**Peronidia lutea** Gray, 1828.

Arctic Ocean, Bering Sea, North Japan, the Aleutian Islands and east to Cook's Inlet, Alaska.

**Peronidia lutea** var. *venulosa* Schrenck, 1861.

Shumagin Islands, Alaska; Sakhalin Island, Japan.

*Genus* Metis H. & A. Adams, 1856.

**Metis alta** Conrad, 1837.

Santa Barbara, Cal., to San Diego.

*Genus* Macoma Leach, 1819.

**Macoma middendorffii** Dall, 1886.

Bering Strait, south to the Commander and Aleutian Islands and eastward to Chirikoff Island, Alaska.

**Macoma incongrua** Martens, 1865.

Arctic Ocean, south to Japan on the west and to San Diego, Cal., on the east.

**Macoma brota** Dall, 1916.

Arctic Ocean. Bering Sea and south to Puget Sound.

**Macoma brota** var. *lipara* Dall, 1916.

Bering Sea to Puget Sound.

**Macoma sitkana** Dall, 1900.

Kadiak Island to Lituya Bay and Sitka, Alaska.

**Macoma calcarea** Gmelin, 1792.

Arctic Ocean to North Japan and to Monterey Bay, Cal. Circumboreal.

**Macoma moesta** Deshayes, 1854.

Arctic Ocean, Bering Sea and eastward to the Shumagin Islands. Circumboreal.

**Macoma nasuta** Conrad, 1837.

Kadiak Island and Cook's Inlet, Alaska, south to Scammon Lagoon, Lower California.

**Macoma inquinata** Deshayes, 1854.

Bering Strait to Japan on the west and to Monterey Bay, Cal., on the east.

**Macoma inquinata** var. *arnheimi* Dall, 1916.

Kadiak Island, Alaska, and south to San Francisco. Pleistocene of San Pedro, Cal.

**Macoma balthica** Linné, 1758.

Circumboreal. Point Barrow, Arctic Ocean to North Japan and San Diego, Cal.

**Macoma inflatula** Dall, 1897.

Arctic Ocean and south to Ballenas Lagoon, Lower Cal.

**Macoma leptonoidea** Dall, 1895.

Santa Barbara Channel. Also Texas coast.

- Macoma quadrana** Dall, 1916.  
Boca de Quadra, Alaska, and south to Coronado Islands,  
Lower California.
- Macoma carlottensis** Whiteaves, 1880.  
Arctic Ocean to Puget Sound.
- Macoma liotricha** Dall, 1897.  
Aleutian Islands and eastward to the Shumagin Islands,  
Alaska.
- Macoma expansa** Carpenter, 1865.  
Puget Sound to San Pedro Bay, Cal.
- Macoma yoldiformis** Carpenter, 1864.  
Fuca Strait to San Diego, Cal.
- Macoma truncaria** Dall, 1916.  
Island near Cape Halkett, Arctic Ocean.
- Macoma alaskana** Dall, 1900.  
Lituya Bay to Sitka, Alaska.

*Section Rexithærus* Conrad, 1869.

- Macoma indentata** Carpenter, 1866.  
Santa Barbara, Cal., to Lower California.
- Macoma indentata** var. *tenuirostris* Dall, 1900.  
San Pedro and the Santa Barbara Islands, to San Diego  
(Kelsey).
- Macoma secta** Conrad, 1837.  
Vancouver Island and south to the Gulf of Cal. Japan?

*Family Semelidæ*

*Genus Semele* Schumacher, 1817.

- Semele decisa** Conrad, 1837.  
San Pedro to San Diego, Cal.
- Semele striosa** C. B. Adams, 1852.  
Catalina Island, Cal., to Panama.
- Semele rupicola** Dall, 1915.  
Santa Cruz, Cal., to Gulf of California.
- Semele rubropicta** Dall, 1871.  
Forrester Island, Alaska, to Tia Juana, Lower California.
- Semele pacifica** Dall, 1915.  
Catalina Island, Cal., to Acapulco.
- Semele incongrua** Carpenter, 1863.  
Monterey, Cal., to the Coronado Islands.
- Semele pulchra** Sowerby, 1832.  
Monterey, Cal., to Ecuador.

*Genus* Cumingia Sowerby, 1833.

**Cumingia lamellosa** Sowerby, 1833.

Crescent City, Cal., south to Payta, Peru. Japan?

*Family* Donacidæ

*Genus* Donax Linné, 1758.

**Donax californica** Conrad, 1837.

San Pedro, Cal., to Panama.

**Donax lævigata** Deshayes, 1854.

Santa Barbara, Cal., to Acapulco.

**Donax punctostriata** Hanley, 1843.

San Pedro, Cal., to Payta, Peru.

**Donax conradi** Deshayes, 1854.

San Diego, Cal., to Central America.

*Family* Psammobiidæ

*Genus* Psammobia Lamarck, 1818.

*Subgenus* Gobraeus Leach, 1852.

**Gobraeus regularis** Carpenter, 1864.

San Diego, Cal., to Cape St. Lucas.

**Gobraeus californicus** Conrad, 1848.

Japan, Kamchatka, the Aleutian Islands and south to San Diego, Cal.

**Gobraeus edentulus** Gabb, 1869.

San Pedro and Catalina Island, Cal., to San Diego. Also Pliocene of Cal.

*Genus* Sanguinolaria Lamarck, 1799.

*Section* Nuttallia Dall, 1897.

**Sanguinolaria nuttallii** Conrad, 1837.

San Pedro to San Diego, Cal.

*Genus* Heterodonax Mörch, 1853.

**Heterodonax bimaculata** Linné, 1758.

Monterey, Cal., to Panama. Also Atlantic.

*Genus* Tagelus Gray, 1847.

**Tagelus californianus** Conrad, 1837.

Santa Barbara, Cal., to Gulf of Tehuantepec.

**Tagelus affinis** C. B. Adams, 1852.

Santa Barbara, Cal., to Panama.

*Subgenus Mesopleura* Conrad, 1837.

**Mesopleura subteres** Conrad, 1837.

Santa Barbara, Cal., to Panama.

*Superfamily Solenacea*

*Family Solenidæ*

*Genus Solen* (L.) Scopoli, 1777.

**Solen sicarius** Gould, 1850.

Vancouver Island to San Diego, Cal.

**Solen rosaceus** Carpenter, 1863.

Santa Barbara, Cal., to Gulf of California.

*Genus Ensis* Schumacher, 1817.

**Ensis californicus** Dall, 1899.

Monterey, Cal., to Gulf of California.

*Genus Siliqua* Megerle, 1811.

**Siliqua lucida** Conrad, 1837.

Monterey, Cal., to Todos Santos Bay, Lower California.

**Siliqua media** Gray, 1839.

Arctic Ocean and south to the Okhotsk Sea, Bering Sea, and eastward to Cook's Inlet, Alaska.

**Siliqua patula** Dixon, 1788.

The Okhotsk Sea, the southern border of Bering Sea and eastward to Sitka, Alaska.

**Siliqua patula** var. *alta* Broderip and Sowerby, 1829.

Bering Strait, south to Unalashka and eastward to Kadiak Island, Alaska.

**Siliqua patula** var. *nuttallii* Conrad, 1837.

Lituya Bay, Alaska, and south to Monterey, Cal.

*Superfamily Mactracea*

*Family Mactridæ*

*Genus Labiosa* (Schmidt) Möller, 1832.

**Labiosa undulata** Gould, 1851.

San Pedro, Cal., to Panama.

*Genus Mactra* Linné, 1758.

*Subgenus Mactrotoma* Dall, 1894.

**Mactrotoma dolabriformis** Conrad, 1837.

Lobitas, Cal., to Topolobampo, Mexico.

**Mactrotoma californica** Conrad, 1837.

Neeah Bay, Wash., to San Diego, Cal.

**Mactrotoma nasuta** Gould, 1851.

San Diego, Cal., to Gulf of California.

*Genus* *Spisula* Gray, 1838.

*Subgenus* *Hemimactra* Swainson, 1840.

*Section* *Mactromeris* Conrad, 1868.

**Hemimactra polynyma** Stm., var. *alaskana* Dall, 1894.

Arctic Ocean at Cape Lisburne, south to Bering Sea and the Aleutians and eastward to Puget Sound. North Japan, the Kurile Islands and the Okhotsk Sea (Schrenck).

**Hemimactra hemphilli** Dall, 1894.

San Pedro to San Diego, Cal.

**Hemimactra catilliformis** Conrad, 1867.

Neeah Bay to San Diego, Cal.

**Hemimactra falcata** Gould, 1850.

Puget Sound to Cortez Bank and the Coronado Islands.

*Subgenus* *Symmorphomactra*, Dall, 1894.

**Symmorphomactra planulata** Conrad, 1837.

Monterey to Cape St. Lucas.

*Genus* *Schizothærus* Conrad, 1853.

**Schizothærus nuttallii** Conrad, 1837.

Wrangell, Alaska, to San Diego, Cal.

**Schizothærus nuttallii** var. *capax* Gould, 1850.

Kadiak Island, Alaska, to San Francisco, Cal.

*Family* *Mesodesmatidæ*

*Genus* *Ervilia* Turton, 1822.

**Ervilia californica** Dall, 1916.

San Pedro, Cal., to San Diego.

*Superfamily* *Myacea*

*Family* *Myacidae*

*Genus* *Mya* (L.) Lamarck, 1799.

**Mya truncata** Linné, 1758.

Circumboreal. Arctic Ocean to Bering Island on the west and to Puget Sound on the east.

**Mya intermedia** Dall, 1898.

Arctic Ocean from Point Barrow to Monterey Bay, Cal.

**Mya arenaria** Linné, 1758.

Victoria, B. C., to Monterey, Cal. Introduced at San Francisco with "seed" oysters from the Atlantic coast.

*Genus* *Cryptomya* Conrad, 1849.

**Cryptomya californica** Conrad, 1837.

Chichagoff Island, Alaska, and south to Topolobampo, Mexico.

*Genus Sphenia* Turton, 1822.

**Sphenia fragilis** Carpenter, 1857.

Oregon to Mazatlan.

**Sphenia ovoidea** Carpenter, 1865.

Aleutian Islands to Puget Sound and San Diego

**Sphenia trunculus** Dall, 1916.

San Diego, Cal., to Panama.

**Sphenia pholadidea** Dall, 1916.

Santa Barbara, Cal.

*Genus Platyodon* Conrad, 1837.

**Platyodon cancellatus** Conrad, 1837.

Baulinas Bay, Cal., to San Diego, Cal.

*Family Corbulidæ**Genus Corbula* Brugière, 1792.

**Corbula obesa** Hinds, 1843.

Catalina Island, Cal., to Panama.

**Corbula fragilis** Hinds, 1843.

Monterey, Cal., to Salina Cruz, Mexico.

**Corbula luteola** Carpenter, 1865.

Monterey, Cal., to San Diego.

**Corbula porcella** Dall, 1916.

Santa Rosa Island, Cal., to Panama.

**Corbula kelseyi** Dall, 1916.

Esteros Bay, to Catalina Island, Cal.

*Genus Grippina* Dall, 1912.

**Grippina californica** Dall, 1912.

Off San Diego Bay, Cal.

*Family Saxicavidæ**Genus Panope* Menard, 1807.

**Panope generosa** Gould, 1850.

Puget Sound to San Diego, Cal.

**Panope generosa** Gould, var. *solida* Dall, 1898.

Straits of Fuca to San Francisco Bay.

*Genus Panomya* (Gray) Adams, 1858.

**Panomya (arctica)** Lam. 1819, Atlantic) variety *turgida* Dall, 1916.

Unalashka to the Shumagin Islands, Alaska.

**Panomya beringiana** Dall, 1916.

Eastern Bering Sea.

**Panomya ampla** Dall, 1898.

Arctic Ocean north of Bering Strait, Bering Sea, Aleutian Islands and eastward to Kadiak Island, Alaska.

*Genus* Saxicavella Martens, 1885.

**Saxicavella pacifica** Dall, 1916.

Off Point Loma, San Diego, 131 fathoms.

*Genus* Cyrtodaria Daudin, 1799.

**Cyrtodaria kurriana** Dunker, 1862.

Arctic Ocean and south to Norton Sound, Alaska; also on the west coast of Greenland.

*Genus* Saxicava Fleuriau, 1802.

**Saxicava arctica** Linné, 1767.

Arctic Ocean to Panama. Also Atlantic.

**Saxicava pholadis** Linné, 1771.

Arctic Ocean to Panama. Also Atlantic.

*Superfamily* Adesmacea

*Family* Pholadidæ

*Subfamily* Pholadinae

*Genus* Barnea (Leach) Risso, 1826.

**Barnea pacifica** Stearns, 1871.

San Francisco Bay, to Lower California.

*Genus* Zirfaea (Leach) Gray, 1847.

**Zirfaea gabbi** Tryon, 1873.

Bering Sea and islands and south to San Diego, Cal.

*Subfamily* Jouannetinae.

*Genus* Parapholas Conrad, 1848.

**Parapholas californica** Conrad, 1837.

Monterey to San Diego, Cal.

*Genus* Pholadidea Turton, 1819.

**Pholadidea penita** Conrad, 1837.

Chirikoff Islands, Alaska, and south to San Pedro, Cal.

**Pholadidea penita** var. *concamerata* Deshayes, 1839.

Bering Sea and islands and south to San Diego, Cal.

**Pholadidea penita** var. *sagitta* Stearns, 1916.

Puget Sound to Socorro Island.

**Pholadidea ovoidea** Gould, 1851.

Bering Sea and islands, and south to the Gulf of Cal.

**Pholadidea parva** Tryon, 1865.San Pedro, Cal., to Lower California, in shells of *Haliotis*.*Subgenus* *Nettastomella* Carpenter, 1865.**Nettastomella rostrata** Valenciennes, 1846.

Puget Sound to San Diego, Cal.

*Genus* *Martesia* (Leach) Blainville, 1824.**Martesia xylophaga** C. B. Adams, 1852.

San Francisco, Cal., to Panama.

**Martesia intercalata** Carpenter, 1855.

Farallones Islands to Catalina Island, Cal.

*Genus* *Navea* Gray, 1851.**Navea subglobosa** Gray, 1851.

Lobitas to Monterey, Cal.

*Genus* *Xylophaga* Turton, 1822.**Xylophaga mexicana** Dall, 1908.

Monterey, Cal., to Acapulco.

*Family* *Teredidæ**Genus* *Xylotrya* (Leach) Gray, 1847.**Xylotrya** ? species.

Bering Island, Bering Sea.

**Xylotrya setacea** Tryon.

Bering Sea to Gulf of California.

*Genus* *Teredo* Linné, 1758.**Teredo diegensis** Bartsch, 1916.

San Diego, Cal.

## SYNONYMIC NOTES.

**Angulus modestus** Cpr., var. *obtusus*, Cpr., 1864, see *Oudardia buttoni*.**Anomia lampe** Gray, 1849, see *A. peruviana* Orb. 1846.**Avicula** Lam. 1799, see *Pteria* Scopoli, 1777.**Cumingia californica** Conr. 1837, see *C. lamellosa* Sby, 1833.

**Modiolaria** Beck, 1846, see *Musculus* Bolten, 1798.

**Mysella**, see *Rochefortia*.

**Nettastomella darwini**, see *N. rostrata*.

**Oedalina**, see *Cooperella*.

**Pachydesma crassatelloides** Conr. 1837, see *P. stultorum* Mawe, 1823.

**Panomya norvegica** Spengler, see *P. arctica* Lamarck.

**Pectunculus** Lam. 1799, see *Glycymeris* Da Costa, 1778.

**Pinna**, see *Atrina*.

**Pristiphora**, see *Serridens*.

**Rupellaria**, see *Venerupis*.

**Tapes**, see *Protothaca*.







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